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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,882	07/24/2001	Yutaka Tsuda	110170	3322

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,882

Applicant(s)

TSUDA, YUTAKA

Examiner

Jason T. Whipkey

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10, 13-16 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11 is/are rejected.
- 7) ☒ Claim(s) 12 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-4 and 11 have been considered but are moot in view of the new grounds of rejection.

Specification

2. The amended title is approved and the corresponding objection is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niikawa (U.S. Patent No. 6,710,809) in view of Sasaki (U.S. Patent No. 5,018,017).

Regarding **claim 1**, Niikawa discloses an electronic camera (digital camera 1 in Figure 6), comprising:

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a volatile memory (DRAM 209) that has a capacity sufficient to temporarily maintain image data (see column 8, lines 11-13) to be transferred to an external memory of the camera (memory card 8);

a detector (voltage detection circuit 260; see Figure 6) that detects a remaining capacity of a battery (battery E) for supplying power to said volatile memory (image memory 209); and

a maintain time calculator (general controller 211) that calculates a maintainable time of the image data maintained in said volatile memory based on the remaining capacity detected by said detector (see column 13, lines 55-56).

Niikawa is silent with regard to the volatile memory having sufficient capacity to store a plurality of images.

Sasaki discloses an electronic camera, including:

a volatile memory (buffer memory 31₆) that has a capacity sufficient to temporarily maintain image data (memory 31₆ loses its contents when power is lost; see column 10, lines 33-51) of a plurality of images (the capacity of memory 31₆ may be large enough to store the data of more than one frame; see column 10, lines 33-36) to be transferred to an external memory (memory card 15).

An advantage of storing a plurality of images in a volatile memory is that a number of images may be shot in a rapid succession before they are processed and written to a non-volatile external memory, which is a relatively slow operation. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Niikawa's camera store a plurality of images in a volatile memory.

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Regarding **claim 2**, Niikawa discloses:

a display (sub-display 100) for displaying the maintainable time
(calculated time T; see column 13, lines 55-56).

Regarding **claim 3**, Niikawa discloses:

a connecting portion (the unlabeled memory card slot in Figure 6)
communicating image data with the external memory (memory card 8; see
column 9, lines 16-18).

Regarding **claim 4**, Niikawa teaches:

the external memory comprises a recording medium detachably
accommodated to the camera (see Figure 6), and said connecting portion
comprises a connector (it is inherent that some sort of connector is present in
order to transfer data between the camera and the card).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Niikawa.

Regarding **claim 11**, Sasaki discloses an electronic camera (figures 6A and 6B)
comprising:

a volatile memory (buffer memory 31₆) that has a capacity sufficient to
temporarily maintain image data (memory 31₆ loses its contents when power is
lost; see column 10, lines 33-51) of a plurality of images (the capacity of memory
31₆ may be large enough to store the data of more than one frame; see column 10,

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lines 33-36) to be transferred to an external memory of the camera (memory card 15);

a recording mode selector (CPU 24₁) that selects one of a first recording mode for transferring and recording the image data to the external memory after maintaining the image data in said volatile memory temporarily (image data is written from buffer memory 31₆ into memory card 15 if sufficient space exists on the memory card, as determined by CPU 24₁; see column 10, lines 60-68, and column 11, lines 34-45) and a second recording mode for recording the image data in said volatile memory (if space is unavailable, the image data is held in buffer memory 31₆; see column 10, lines 41-44).

Sasaki is silent with regard to detecting, calculating, and displaying a remaining time for holding the image data in memory.

Niikawa discloses:

a detector (voltage detection circuit 260; see Figure 6) that detects a remaining capacity of a battery (battery E) for supplying power to said volatile memory (image memory 209); and

a maintain time calculator (general controller 211) that calculates a maintainable time of the image data maintained in said volatile memory based on the remaining capacity detected by said detector (see column 13, lines 55-56); and

a display (sub-display 100) for displaying the maintainable time (calculated time T) when the second recording mode is selected by said recording

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mode selector (the time remaining is displayed at all times; see column 13, lines 39-60).

As stated in column 3, lines 9-12 and 21-26, an advantage of calculating and displaying a remaining operational time is that the camera may shut down power-consuming features and inform the user of the amount of battery time available, allowing the user to plan accordingly. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Sasaki's camera calculate and display a remaining time for holding the image data in memory.

Allowable Subject Matter

6. Claims 5-10, 13-16, and 18 are allowed.

Regarding claims 5-10 and 13-16, no prior art could be located that teaches or fairly suggests an electronic camera that calculates a time during which a camera is operational and a volatile memory is maintained by subtracting a maintain capacity, which is calculated based on a desired data maintain time set by a setter, from a detected battery capacity.

Regarding claim 18, no prior art could be located that teaches or fairly suggests an electronic camera that calculates (a) a time during which a volatile memory can be maintained based on a detected battery charge, and (b) a time during which a camera operation can be maintained based on a detected battery charge, and displays both on a display.

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7. Claims 12 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding both claims, no prior art could be located that teaches or fairly suggests an electronic camera that calculates a time during which a camera is operational and a volatile memory is maintained by subtracting a maintain capacity, which is calculated based on a desired data maintain time set by a setter, from a detected battery capacity and displays both the memory maintainable time and calculated camera operational time on a display.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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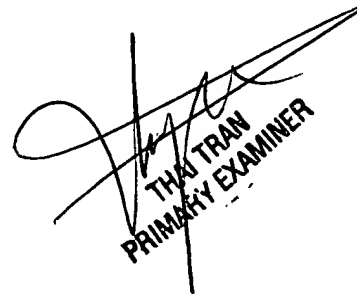
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:00 A.M. to 5:30 P.M. eastern daylight time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran, can be reached at (571) 272-7382. The fax phone number for the organization where this application is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTW
JTW
July 5, 2005


THAI TRAN
PRIMARY EXAMINER